STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : Chief, Communications Engineering Division DATE: SPM 6-528 23 March 1956

FROM : Chief, Supplemental Programs Division, OC

SUBJECT: [redacted] Marine ELINT Collection System - Project No. E-5953 25X1

1. Initially the [redacted] Marine ELINT Collection system was considered as a device to [redacted] Since the date of the initial requirement (20 October 1954), the ELINT community has changed both in personnel and concept. The present community is expressing more interest in, and considers the inclusion of CW collection capability an essential. 25X1 25X1 25X1

2. Techniques of CW detection are well established by other crystal video systems. They usually consist of a theme and variation based on chopping the crystal bias current and measuring its increase over a static level. The intent is to retain amplitude fidelity (of the received signal) and a sensitivity at least equal, if not better than, the system's pulse sensitivity. It occurs that the association of oscilloscopes with each individual channel of the Philco system presents opportunities for operator recognition of a CW signal. Because this system is manually operated, the operator can be considered available to perform any duties requisite to the CW recognition problem.

3. You are requested to investigate the following and advise this Division at the earliest possible date:

1) The practicability of CW detection capability in the present configuration.

2) The contractual cost increase, if any.

3) The delay which might be entailed by this additional requirement.

4) The type of CW detection circuit and presentation considered by your project engineer and the contractor.

Your early attention to this problem is requested.

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